Tunable Active Notch Filter

- **Three-branch architecture with straight-through bypass channel**

- **No active circuit elements in signal path at passband frequencies**

- **No passband distortion**

- **Low passband noise figure of <1.8 dB**

- **Notch depth of 40 dB**

- **Constant notch width of 70 MHz at 10-dB-down points**

- **Notch center frequency tunable over 1-GHz range**

- **Use of commercial varactors and amplifier chips**

Hybrid-circuit realization of a tunable notch filter
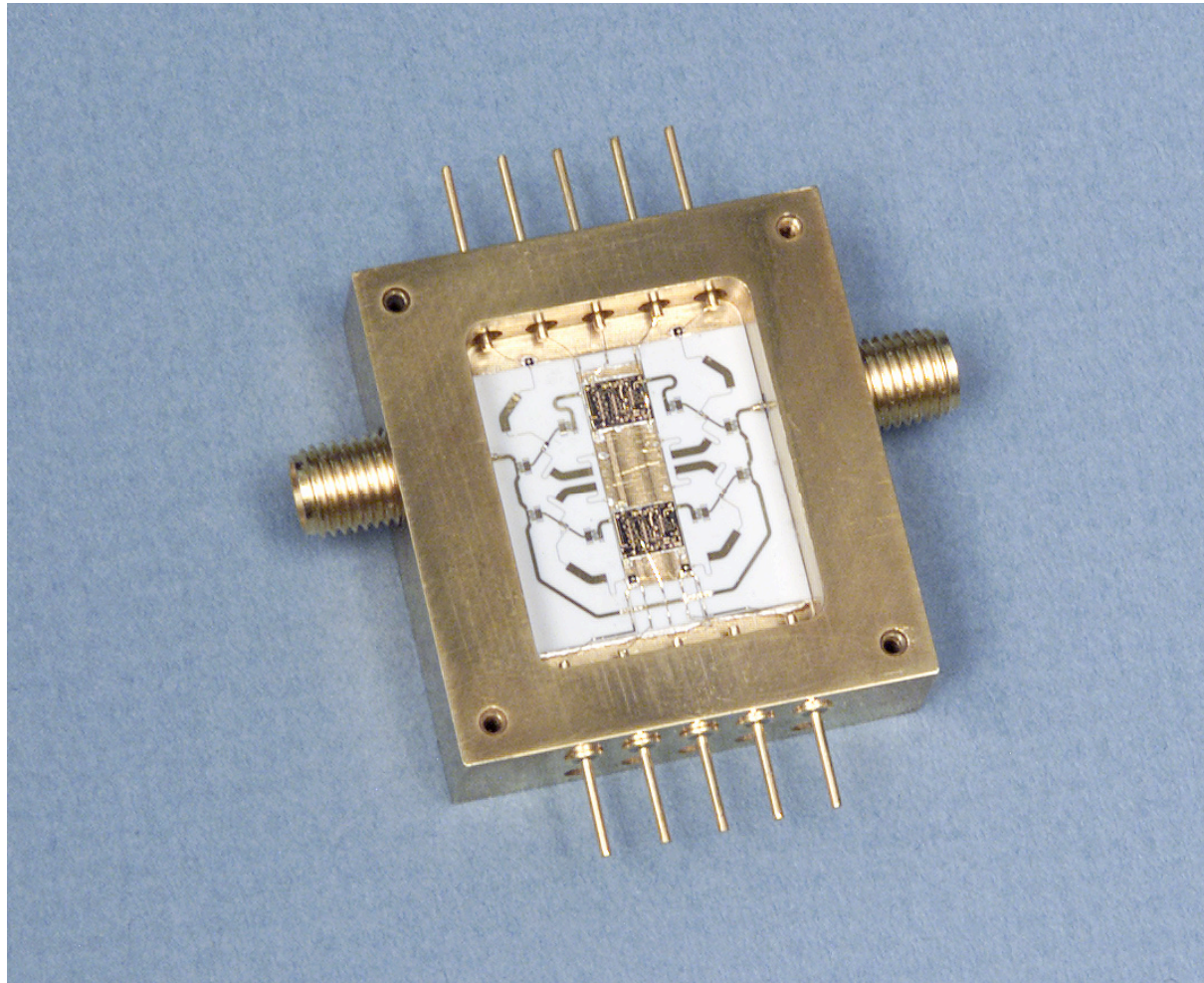
Conceptual block diagram of the tunable notch filter
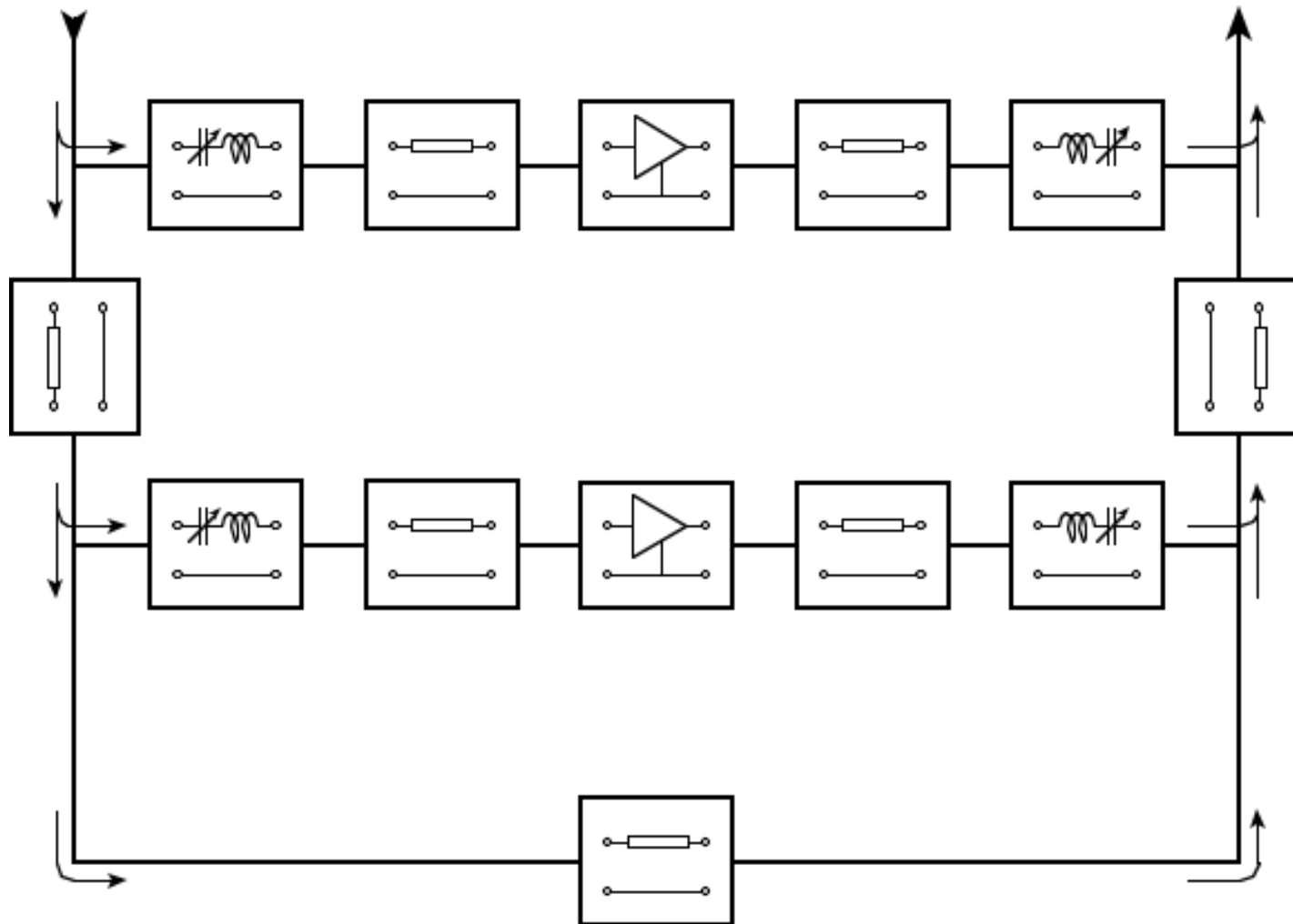
Measured filter performance for five different varactor settings